

Trident Warrior 2012 experiments with unmanned surface vessels

Test crafts equipped with hailers, lasers, warning munitions

By MC3 Betsy Knapper
Navy Public Affairs Support Element East

HAMPTON, Va. -- Trident Warrior 2012 (TW12) kicked off at Fort Eustis, Jan. 30, as part of U.S. Fleet Forces Command's new fleet experimentation program, where participants experiment with advanced maritime initiatives in an operational environment to improve capabilities available to the fleet.

U.S. Navy unmanned surface vessels (USV), maintained by Naval Surface Warfare Center Combatant Craft Division (NSWC CCD), were set up with cameras, computer systems and non-lethal weapons during TW12 Spiral 1 experiment. For this part of TW12, two test crafts were equipped with directional acoustic hailers, eye dazzling lasers and flash-bang warning munitions.

"The biggest piece with this part of Trident Warrior is the addition of non-lethal weapons - the hailer, laser dazzler and the flash-bangs," said Carl Conti, U.S. Navy Capt. (ret.), Program Manager, Spatial Integrated Systems, Inc. "The other part is being able to control them autonomously and then from a station back at the command center."

During the experiment, a remote-controlled five-meter rigid hull inflatable boat (RHIB), named Sea Fox, preformed as an aggressor boat intruding in protected waters during a maritime security mission. Sea Fox ignored a series of warnings and the USV responded by first projecting a pre-recorded warning message and then deploying Venom V-10 warning munitions off the bow to detour Sea Fox from continuing approach.

"In a real world situation with an approaching vessel, our rules of engagement are going to stop us from doing anything until we know what the intent is," said Conti. "So now, if we yell at him to get out of the way, we put a dazzler on his eyes and shoot flash-bangs to get him out of the way and he keeps coming, we now know his intent and are able to protect ourselves much further out than we would be able to protect ourselves normally."

One of the goals with TW12 is to get involved with unmanned systems of all sorts, air, land, sea and underwater and to have these systems work in real world type of exercises.

"This is as main stream as it gets," said Mike French, Aerospace Engineer with Aviation Applied Technology Division, Fort Eustis. "We hope we can use these lessons learned, not only for experimental robotics, but for Army aviation and apply these lessons learned throughout the board."

The experiment concluded on Feb. 3. Over the next following months, analysts will process the data collected from the experiment and continue to improve the Navy's capabilities.